Claims

1. An inhibitor of the sSEP or a functional active soluble derivative thereof or of the SEP as defined in SEQ ID NO: 2, 4 or 6 or of a functional active derivative thereof.

2. The inhibitor of claim 1, wherein the derivative of sSEP exhibits a sequence homology of at least 25 % to the sSEP.

3. The inhibitor of any of claims 1 or 2, wherein the sSEP or functional derivative thereof is devoid of a transmembrane domain of SEP or of a functional active variant thereof.

4. The inhibitor of any of claims 1 to 3, wherein the sSEP or functional derivative thereof has a C-terminal amino acid corresponding to amino acid 510, 249, 246, 242, 171 or 167 of SEP according to SEQ ID NO: 4 or has a C-terminal amino acid corresponding to the equivalent amino acid of a sSEP derivative.

5. The inhibitor of any of claims 1 to 3, wherein the sSEP or functional derivative thereof has the sequence as shown in any of SEQ ID NO: 7 to 18.

6. The inhibitor of any of claims 1 to 5, selected from the group consisting of antibodies, peptides, fragments of SEP, antisense oligonucleotides, siRNA, Low molecular weight molecules (LMWs) and SEP receptor antagonists.

7. The inhibitor of claim 6, wherein the inhibitor is an antibody, preferably a polyclonal or monoclonal antibody or fragment thereof.

8. The inhibitor of claim 6, wherein the inhibitor is a fragment of SEP, preferably a peptide having the sequence as shown in SEQ ID NO: 26 or 27.

9. A pharmaceutical composition, comprising the inhibitor of any of claims 1 to 8, optionally in combination with a pharmaceutically acceptable carrier.

10. The pharmaceutical composition of claim 9, further comprising a VEGF inhibitor.

11. The inhibitor of any of claims 1 to 8, for use in therapy.

12. Use of an inhibitor of any of claims 1 to 8 for the preparation of a pharmaceutical composition for the treatment of cancer, rheumatoid arthritis, psoriasis, artherosclerosis, retinopathy, osteoarthritis, endometriosis and chronic inflammation.

13. The use of claim 12, wherein the inhibitor prevents the formation of vascular vessels in the tumor tissue.

14. The use of any of claims 12 or 13, wherein the inhibitor inhibits the production of VEGF, IL-8 and/or RANTES.

15. The use of any of claims 12 to 14, wherein the cancer is selected from the group consisting of brain cancer, pancreas carcinoma, stomach cancer, colon carcinoma, skin cancer, especially melanoma, bone cancer, kidney carcinoma, liver cancer, lung carcinoma, ovary cancer, mamma carcinoma, uterus carcinoma, prostate cancer and testis carcinoma.

16. The use of any of claims 12 to 15, in combination with a VEGF inhibitor.

17. A method for the identification of a SEP inhibitor, wherein a potential inhibitor is tested for its activity to block the effects of SEP or of a functional derivative thereof.

18. A method for the preparation of a pharmaceutical composition, wherein a SEP inhibitor is identified according to claim 17, synthesized in adequate amounts and finally formulated into a pharmaceutical composition.

19. Use of SEP, sSEP or a derivative thereof for the identification of proteins that bind or interact with SEP, wherein

a) a potential SEP interactor is brought into contact with SEP or a functional derivative thereof, and

b) binding of the potential interactor to SEP or the functional derivative thereof is determined.